Amendments to the Specification:

*Please amend the paragraph on page 1, line 6, as follows:

The present application claims the benefit of U.S. provisional patent ~~Priority is claimed based upon co-pending~~ application no. 60/173,880 filed December 31, 1999. ~~12/31/00~~

*Please amend the paragraph on page 2, lines 5-16 as follows:

Printer 12 and the scanner 13 generally do not have a perfect color response and they have transfer functions which are [[is]] other than unity. That is, they introduce anomalies, distortions or changes into the image.   For example, with some scanners, if a printed image is scanned and then displayed, the appearance of the displayed image will not be identical appearance to the hard copy image.   Likewise, with some printers, if a digital image is printed, the printed image will not appear to be identical to a display of the original digital image.   As used herein the term scanner is used to mean conventional flatbed and sheet feed scanners as well as other image acquisition devices such as digital cameras. Anomalies, distortions or changes introduced into an image by a printer or scanner are hereinafter collectively referred to as "artifacts".   Such artifacts may interfere with the operation of the watermark detection program 13 or with programs used to detect patterns or geometric shapes in an image.

*Please amend the paragraph on page 3, line 22 as follows:

Figure 5A, 5B, 5C and 5D [[5C]] are used to describe an alternate embodiment of the invention.

*Please amend the paragraph spanning page 6, line 31 to page 7, line 10 as follows:

The inverse user adjustment program 25 determines what changes were made to the calibrated tone map as a result of inputs from the user. Inverse user adjustment program 25 then applies the inverse of these changes to the image produced by scanner 24. The inverse user adjustment program 25 is a program that performs an inverse table look up operation. Programs to perform an inverse table look up are conventional. The action performed by inverse user adjustment program 25 is illustrated in Figure 3C. When a user adjusts the contrast setting, the shape of the Gamma curve is changed. Figure 3C illustrates what happens to the Gamma curve when the user adjusts the contrast of the image. In the example shown, the contrast setting was lowered by the user. As a result of the changes by the user the Gamma curve was changed and at the upper end (at higher intensity) the pixels are given a lower intensity than prior to the adjustment. The inverse user adjustment program 25 reverses the delta created by the user settings.

*Please amend the paragraph on page 7, lines 12-14 as follows:

The following example illustrates [[the]] what occurs when the calibrated tone map is changed into a user adjusted tone map and how the inverse user adjustment program 25 operates.

*Please amend the paragraph on page 8, lines 21-29 as follows:

As indicated by block 314, the adjusted digital image (i.e., image(i.e. the digital image with the user adjusted tone map applied) is supplied to the inverse user adjustment program 25. Program 25 reverses the changes made in the tone map to satisfy the user entered tone and contrast setting. The result is that inverse user adjustment program 25 produces a corrected image adjusted according to the calibrated tone map. As illustrated in Figure 3C, the inverse user adjustment program 25 changes the image such that the result of both the correction made in the scanner and the correction made by inverse user adjustment program 25 (i.e. the sum of both corrections) is the same

correction as would have been made by the calibrated tone map if only it had been applied to the image.

*Please amend the paragraph on page 10, lines 8-13 as follows:

Next, a test pattern and a calibration program are [[is]] used to generate the calibrated tone map. The International Color Consortium has developed a standard color calibration format.   Information about the standard color calibration can be found on a web site maintained by the Color Consortium. The web site has the name "color" and the group designator "org" (note URLs are not permitted in a patent application but the URL can be easily located from the above information)

*Please amend the paragraph on page 12, lines 4-10 as follows:

The preferred embodiment of the invention described above relates to enhancing the operation of a watermark detection program. The invention could be similarly applied to enhancing the operation of programs such as programs that [[the]] detect geometric shapes such as logos or particular patterns in an image. Likewise the invention could be applied to enhancing the operation of feature extraction programs, such as program for face recognition, fingerprint detection etc. In all these cases the inverse user adjustment program 25 would reverse any changes made as a result of settings entered by the user.

*Please amend the paragraph on page 13, lines 9-17 as follows:

The image 420C is passed through (or operated upon by) a transfer function 425 which approximates as close as possible the inverse of the transfer function S(u). The image is passed through (or operated upon by) a transfer function 426 which approximates as close as possible the inverse of the transfer function S(v).   Both of the operations 425 and 426 may be done simultaneously. The technique for designing a filter with a particular transfer function is well known. know. The result of passing the image through filters 425 and 426 is a modified digital image 420D. The modified digital image 420D is then passed through a conventional watermark detection program 424 in order to detect the watermark.

*Please amend the paragraph on page 14, line 21-29 as follows:

Any printers and any scanner has a transfer functions which is particular to the particular physical characteristics of the printer. In general the manufacturer of a printer or a scanner would best understand the transfer function of a particular printer or scanner. However, if the transfer function of a printer or a scanner can not be obtained from the unit's units-manufacturer, it can be determined experimentally. The transfer function of a printer and of a scanner can be determined experimentally in various known ways. One particular technique for determining the transfer function of a printer or of a scanner is shown in Figure 6. First, a process for determining the transfer function of a scanner 642 will be described.